

Maven Basics, Web/App Server Basics

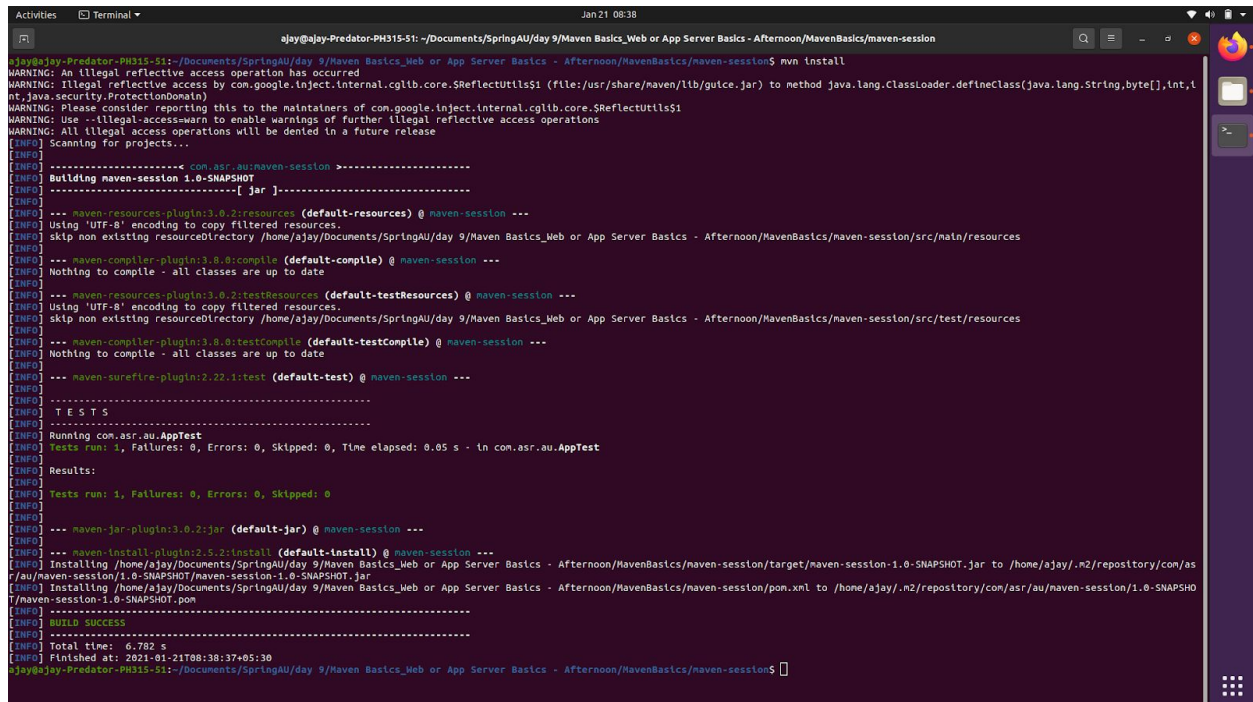
Spring AU 2021

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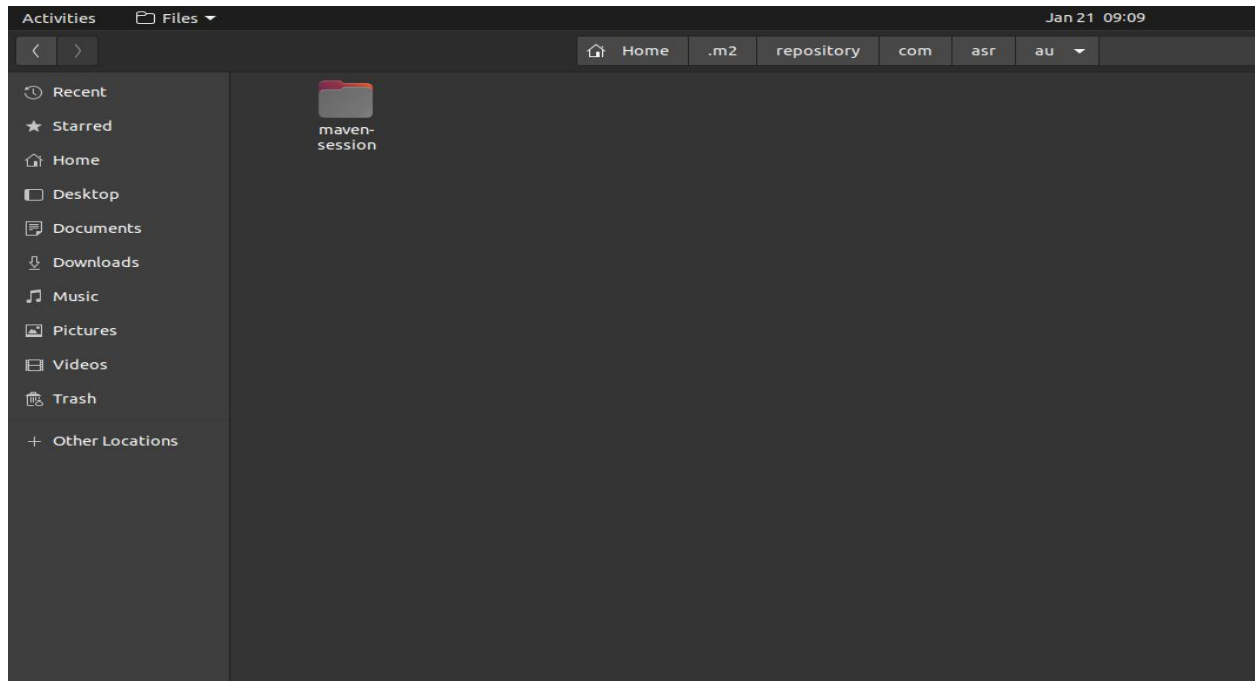
Code added as a separate file

1. Perform "mvn install" on the "maven-session" project which was created during the session and share the screen-shots



```
ajay@ajay-Predator-PH315-S1: ~/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/maven-session$ mvn install
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1 (file:/usr/share/maven/lib/guice.jar) to method java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
[INFO] Scanning for projects...
[INFO]
[INFO] ----- com.asr.au:maven-session -----
[INFO] Building maven-session 1.0-SNAPSHOT
[INFO] -----[ jar ]-----
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:resources (default-resources) @ maven-session ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory /home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/maven-session/src/main/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:compile (default-compile) @ maven-session ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:testResources (default-testResources) @ maven-session ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory /home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/maven-session/src/test/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ maven-session ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] --- maven-surefire-plugin:2.22.1:test (default-test) @ maven-session ---
[INFO]
[INFO] -----
[INFO] T E S T S
[INFO] -----
[INFO] Running com.asr.au.AppTest
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0, Time elapsed: 0.05 s - in com.asr.au.AppTest
[INFO]
[INFO] Results:
[INFO]
[INFO] Tests run: 1, Failures: 0, Errors: 0, Skipped: 0
[INFO]
[INFO]
[INFO] --- maven-jar-plugin:3.0.2:jar (default-jar) @ maven-session ---
[INFO]
[INFO] --- maven-install-plugin:2.5.2:install (default-install) @ maven-session ---
[INFO] Installing /home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/maven-session/target/maven-session-1.0-SNAPSHOT.jar to /home/ajay/.m2/repository/com/asr/au/maven-session/1.0-SNAPSHOT/maven-session-1.0-SNAPSHOT.jar
[INFO] Installing /home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/maven-session/pom.xml to /home/ajay/.m2/repository/com/asr/au/maven-session/1.0-SNAPSHOT/maven-session-1.0-SNAPSHOT.pom
[INFO]
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 6.782 s
[INFO] Finished at: 2021-01-21T08:38:37+05:30
ajay@ajay-Predator-PH315-S1:~/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/maven-session$
```

maven-session inside .m2 repository after mvn install



2. Create a web-app using the archetype plugin

```
ajay@ajay-Predator-PH315-S1: ~/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics
ajay@ajay-Predator-PH315-S1:~/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics$ mvn archetype:generate -DgroupId=com.asr -DartifactId=webAppDemo -DarchetypeGroupId=org.apache.maven.archetypes -DarchetypeArtifactId=maven-archetype-webapp
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1 (file:/usr/share/maven/lib/guice.jar) to method java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
[INFO] Scanning for projects...
[INFO]
[INFO] -----< org.apache.maven:standalone-pom >-----
[INFO] Building Maven Stub Project (No POM) 1
[INFO] -----[ pom ]-----
[INFO]
[INFO] >>> maven-archetype-plugin:3.2.0:generate (default-cli) > generate-sources @ standalone-pom >>>
[INFO]
[INFO] <<< maven-archetype-plugin:3.2.0:generate (default-cli) < generate-sources @ standalone-pom <<<
[INFO]
[INFO] --- maven-archetype-plugin:3.2.0:generate (default-cli) @ standalone-pom ---
[INFO] Generating project in interactive mode
[INFO] Archetype [org.apache.maven.archetypes:maven-archetype-webapp:1.4] found in catalog remote
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-webapp/1.4/maven-archetype-webapp-1.4.pom (1.4 kB at 3.1 kB/s)
Downloaded from central: https://repo.maven.apache.org/maven2/org/apache/maven/archetypes/maven-archetype-webapp/1.4/maven-archetype-webapp-1.4.jar (6.8 kB at 15 kB/s)
[INFO] Using property: groupId = com.asr
[INFO] Using property: artifactId = webAppDemo
Define value for property 'version': 1.0-SNAPSHOT: :
[INFO] Using property: package = com.asr
Confirm properties configuration:
groupId: com.asr
artifactId: webAppDemo
version: 1.0-SNAPSHOT
package: com.asr
Y: :
[INFO] Using following parameters for creating project from Archetype: maven-archetype-webapp:1.4
[INFO] -----
[INFO] Parameter: groupId, Value: com.asr
[INFO] Parameter: artifactId, Value: webAppDemo
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] Parameter: package, Value: com.asr
[INFO] Parameter: packageInPathFormat, Value: com/asr
[INFO] Parameter: package, Value: com.asr
[INFO] Parameter: groupId, Value: com.asr
[INFO] Parameter: artifactId, Value: webAppDemo
[INFO] Parameter: version, Value: 1.0-SNAPSHOT
[INFO] Project created from Archetype in dir: /home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 32.625 s
[INFO] Finished at: 2021-01-21T20:47:52+05:30
[INFO] -----
ajay@ajay-Predator-PH315-S1:~/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics$
```

3. In the above-created web-app add a sample servlet
4. Use tomcat maven plugin and run the web-app

Screenshots for 3 & 4:

a. From Demo Servlet

<http://localhost:9080/webAppDemo/demo>

Demo Servlet WebApp

Ajay



b. From index.jsp

<http://localhost:9080/webAppDemo/>

Demo Servlet

[Go to Servlet page](#)

c. mvn clean package

```
Activities Terminal Jan 21 21:48
ajay@ajay-Predator-PH315-S1: ~/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo
ajay@ajay-Predator-PH315-S1:~/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo$ mvn clean package
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1 (file:/usr/share/maven/lib/guice.jar) to method java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
[INFO] Scanning for projects...
[INFO] -----< com.asr.webAppDemo >-----
[INFO] Building webAppDemo Maven Webapp 1.0-SNAPSHOT
[INFO] -----[ war ]-----
[INFO] --- maven-clean-plugin:3.1.0:clean (default-clean) @ webAppDemo ---
[INFO] Deleting /home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo/target
[INFO] --- maven-resources-plugin:3.0.2:resources (default-resources) @ webAppDemo ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory /home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo/src/main/resources
[INFO] --- maven-compiler-plugin:3.8.0:compile (default-compile) @ webAppDemo ---
[INFO] Changes detected - recompiling the module!
[INFO] Compiling 1 source file to /home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo/target/classes
[INFO] --- maven-resources-plugin:3.0.2:testResources (default-testResources) @ webAppDemo ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory /home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo/src/test/resources
[INFO] --- maven-compiler-plugin:3.8.0:testCompile (default-testCompile) @ webAppDemo ---
[INFO] No sources to compile
[INFO] --- maven-surefire-plugin:2.22.1:test (default-test) @ webAppDemo ---
[INFO] No tests to run.
[INFO] --- maven-war-plugin:3.2.2:war (default-war) @ webAppDemo ---
[INFO] Packaging webapp
[INFO] Assembling webapp [webAppDemo] in [/home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo/target/webAppDemo]
[INFO] Processing war project
[INFO] Copying webapp resources [/home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo/src/main/webapp]
[INFO] Webapp assembled in [37 msecs]
[INFO] Building war: /home/ajay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo/target/webAppDemo.war
[INFO] -----
[INFO] BUILD SUCCESS
[INFO] -----
[INFO] Total time: 2.187 s
[INFO] Finished at: 2021-01-21T21:48:00+05:30
[INFO] -----
ajay@ajay-Predator-PH315-S1:~/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo$
```

d. mvn tomcat7:run

```
Activities Terminal Jan 21 21:48
sJay@ajay-Predator-PH315-S1: ~/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo
sJay@ajay-Predator-PH315-S1:~/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo$ mvn tomcat7:run
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com.google.inject.internal.cglib.core.$ReflectUtils$1 (file:/usr/share/maven/lib/guice.jar) to method java.lang.ClassLoader.defineClass(java.lang.String,byte[],int,int,java.security.ProtectionDomain)
WARNING: Please consider reporting this to the maintainers of com.google.inject.internal.cglib.core.$ReflectUtils$1
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
[INFO] Scanning for projects...
[INFO] ----- com.ajay.webAppDemo -----
[INFO] Building webAppDemo Maven Webapp 1.0-SNAPSHOT
[INFO] -----[ war ]-----
[INFO]
[INFO] >>> tomcat7-maven-plugin:2.2:run (default-cli) > process-classes @ webAppDemo >>>
[INFO]
[INFO] --- maven-resources-plugin:3.0.2:resources (default-resources) @ webAppDemo ---
[INFO] Using 'UTF-8' encoding to copy filtered resources.
[INFO] skip non existing resourceDirectory /home/sJay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo/src/main/resources
[INFO]
[INFO] --- maven-compiler-plugin:3.8.0:compile (default-compile) @ webAppDemo ---
[INFO] Nothing to compile - all classes are up to date
[INFO]
[INFO] <<< tomcat7-maven-plugin:2.2:run (default-cli) < process-classes @ webAppDemo <<<
[INFO]
[INFO]
[INFO] --- tomcat7-maven-plugin:2.2:run (default-cli) @ webAppDemo ---
[INFO] Running war on http://localhost:9080/webAppDemo
[INFO] Creating Tomcat server configuration at /home/sJay/Documents/SpringAU/day 9/Maven Basics_Web or App Server Basics - Afternoon/MavenBasics/webAppDemo/target/tomcat
[INFO] create webapp with contextPath: /webAppDemo
Jan 21, 2021 9:48:14 PM org.apache.coyote.AbstractProtocol init
INFO: Initializing ProtocolHandler ["http-bio-9080"]
Jan 21, 2021 9:48:14 PM org.apache.catalina.core.StandardService startInternal
INFO: Starting service Tomcat
Jan 21, 2021 9:48:14 PM org.apache.catalina.core.StandardEngine startInternal
INFO: Starting Servlet Engine: Apache Tomcat/7.0.47
Servlet DemoServlet has started
Jan 21, 2021 9:48:16 PM org.apache.coyote.AbstractProtocol start
INFO: Starting ProtocolHandler ["http-bio-9080"]
]
```